AMENDMENT AND RESPONSE AFTER FINAL OFFICE ACTION

**Amendments to the Claims:** 

This listing of claims will replace all prior versions, and listing, of claims in this

application.

1-53 (Cancelled).

54. (new) A gas detector comprising:

a metal connecting frame; and

a housing having a first portion formed of a first type plastic, the first portion, at least in

part, surrounds the frame with elongated portions of the frame extending through and

encapsulated by portions of the plastic with other portions of the frame accessible to provide

contacts exterior to the first portion, and with the encapsulated portion of the frame forming a

flame proof seal with the encapsulating first portion with the housing having a second outer

portion, the second portion encloses the first portion and non-contact portions of the frame, and

is formed of a different plastic material with the second outer portion forming a partially

enclosed sensing region for a gas sensor with the second portion defining a gas inflow port.

A gas detector as in claim 54 where the encapsulated portion of the frame is at 55. (new)

least 6 mm long.

A gas detector as in claim 54 where the sensing region is closed by a flame 56. (new)

arrestor that covers the inflow port.

3

Applicants: David Frank Davies et al.

Serial No. 10/535,567

## AMENDMENT AND RESPONSE AFTER FINAL OFFICE ACTION

4

- 57. (new) A gas detector as in claim 56 where the flame arrestor comprises a metal mesh.
- 58. (new) A gas detector as in claim 57 where the metal mesh is, in part, bonded to the second, outer, portion by plastic filling voids in the mesh adjacent thereto.
- 59. (new) A gas detector as in claim 57 which includes a filter located in the sensing region between the gas sensor and the metal mesh.
- 60. (new) A gas detector as in claim 54 wherein the second, outer, portion carries an electronic storage unit coupled to at least some of the contacts.